

In the Claims:

1.-2. (Canceled)

3. (Previously Presented) An integrated circuit chip comprising:
a search engine including a content addressable memory (CAM) configured to produce CAM indices responsive to search instructions provided to the search engine and an index translation circuit operatively coupled to the CAM and configured to provide translation of the CAM indices, wherein the index translation circuit is configured to receive CAM indices from a second search engine device and is configurable to provide independent index mappings for respective segments of the second search machine device.

4.-10. (Canceled)

11. (Previously Presented) ~~An integrated circuit chip according to Claim 1~~An integrated circuit chip comprising:
a search engine including a content addressable memory (CAM) configured to produce CAM indices responsive to search instructions provided to the search engine and an index translation circuit operatively coupled to the CAM and configured to provide translation of the CAM indices, wherein the index translation circuit is configurable to provide independent index mappings for respective segments of the CAM, wherein the index translation circuit comprises a mapping table operative to associate respective combinations of a shift factor and a base address for a database with respective CAM segment identifiers, wherein the shift factors indicate database entry size, and wherein the index translation circuit is operative to receive a CAM index, to identify a base address and a shift factor corresponding to a CAM segment identifier in the received CAM index, to concatenate the identified base address with a segment entry offset in the received CAM index, and to shift the concatenated result according to the identified shift factor to produce a database relative index corresponding to the received CAM index.

12.-14. (Canceled)

15. (Currently Amended) ~~An integrated circuit chip according to Claim 14, An~~
integrated circuit chip comprising:

a search engine including a content addressable memory (CAM) configurable to store
a plurality of databases and operative to produce CAM indices in an index space of a search
machine comprising the search engine responsive to search instructions provided to the
search engine and an index translation circuit operatively coupled to the CAM and configured
to translate the CAM indices produced by the CAM to database relative indices, wherein the
index translation circuit is configurable to provide independent index mappings for respective
segments of the CAM and wherein the index translation circuit is configured to receive CAM
indices from a second search machine device and is configurable to provide independent
CAM index mappings for respective segments of the second search machine device.

16.-29. (Canceled)

30. (Original) An integrated circuit chip comprising:

a search engine comprising a content addressable memory (CAM) configured to
produce CAM indices responsive to search instructions provided to the search engine and an
index translation circuit operatively coupled to the CAM and configured to store memory
entry size information and to provide translation of the CAM indices to another memory
space based on the stored memory entry size information.

31. (Previously Presented) An integrated circuit chip according to Claim 30,
wherein the memory entry size information comprises entry size information for a database in
the CAM.

32. (Previously Presented) An integrated circuit chip according to Claim 30,
wherein the memory entry size information comprises entry size information for a memory
external to the chip.

33. (Previously Presented) An integrated circuit chip according to Claim 30, wherein the index translation circuit is configured to store a base address for a memory space and a shift factor indicating a data entry size for the memory space and to generate a translated address or index from a CAM index according to the base address and the shift factor.

34. (Previously Presented) An integrated circuit chip according to Claim 33, wherein the memory space comprises one of a database, a memory space associated with a command source for the search engine, and a memory space of a external memory device.

35. (Previously Presented) An integrated circuit chip according to Claim 33, wherein the shift factor further indicates a data entry size for the CAM.

36.-41. (Canceled)